

CLAIMS

1. A method of controlling an irrigation system, comprising:
 - receiving landscape information;
 - receiving environmental information;
 - 5 deriving an irrigation schedule based on the landscape information and the environmental information; and
 - sending the irrigation schedule to an irrigation control unit.
2. A method of controlling an irrigation system as recited in Claim 1, wherein the irrigation schedule is sent to the irrigation control unit via a network.
- 10 3. A method of controlling an irrigation system as recited in Claim 1, wherein the irrigation schedule is sent to the irrigation control unit via the Internet.
4. A method of controlling an irrigation system as recited in Claim 1, wherein the irrigation schedule is sent to the irrigation control unit via a telephone line.
5. A method of controlling an irrigation system as recited in Claim 1, wherein the
15 landscape information and the environmental information are provided to a central control system.
6. A method of controlling an irrigation system as recited in Claim 1, wherein providing the landscape information includes configuring a landscape parameter via a web interface.
- 20 7. A method of controlling an irrigation system as recited in Claim 1, further comprising updating the environmental information.

8. A method of controlling an irrigation system as recited in Claim 1, wherein the landscape information includes soil type.
9. A method of controlling an irrigation system as recited in Claim 1, wherein the landscape information includes slope information.
- 5 10. A method of controlling an irrigation system as recited in Claim 1, wherein the landscape information includes plant type.
11. A method of controlling an irrigation system as recited in Claim 1, wherein the landscape information includes age of plant.
12. A method of controlling an irrigation system as recited in Claim 1, wherein the
10 environmental information includes evapotranspiration (ET) information.
13. A method of controlling an irrigation system as recited in Claim 1, wherein the environmental information includes weather information.
14. A method of controlling an irrigation system as recited in Claim 1, wherein the irrigation schedule includes a restriction on the amount of water used.
- 15 15. A method of controlling an irrigation system as recited in Claim 1, wherein the irrigation schedule includes a valve command.
16. A method of controlling an irrigation system as recited in Claim 1, further comprising updating the environmental information.
17. A method of controlling an irrigation system as recited in Claim 1, wherein
20 deriving the irrigation schedule includes balancing usage with other sites.
18. A method of controlling an irrigation system as recited in Claim 1, wherein deriving the irrigation schedule includes providing biasing information.

19. A method of controlling an irrigation system as recited in Claim 1, wherein deriving the irrigation schedule includes accounting for needs of the most demanding plant.

20. A method of controlling an irrigation system as recited in Claim 1, wherein
5 deriving the irrigation schedule includes selecting an algorithm used for deriving the irrigation schedule from a plurality of algorithms.

21. A method of controlling an irrigation system as recited in Claim 1, wherein the irrigation control unit is connected to Internet via a local point of presence (POP).

22. A method of controlling an irrigation system as recited in Claim 1, wherein the
10 irrigation schedule is sent to the irrigation control unit via Internet.

23. A method of controlling an irrigation system as recited in Claim 1, wherein sending the irrigation schedule to an irrigation control unit is initiated by the irrigation control unit.

24. A method of controlling an irrigation system as recited in Claim 1, wherein
15 sending the irrigation schedule to an irrigation control unit is initiated by the irrigation control unit and the irrigation control unit uses a pull model to request the irrigation schedule.

25. A method of controlling an irrigation system as recited in Claim 1, wherein the irrigation control unit communicates with a watering station via a shared phone line.

20 26. A method of controlling an irrigation system as recited in Claim 1, in the event that sending the irrigation schedule fails, further comprising providing an alert.

27. A method of controlling an irrigation system as recited in Claim 1, in the event that sending the irrigation schedule fails, further comprising performing irrigation using a stored irrigation schedule on the irrigation control unit.

28. A method of controlling an irrigation system as recited in Claim 1, further
5 comprising providing analysis of water usage to a water agency.

29. A method of controlling an irrigation system as recited in Claim 1, further comprising uploading meter data from the irrigation control unit to a central control.

30. A method of controlling an irrigation system as recited in Claim 1, further comprising viewing the landscape information and/or the irrigation schedule via a web
10 interface.

31. A method of controlling an irrigation system as recited in Claim 1, further comprising modifying the landscape information and/or the irrigation schedule via a web interface.

32. A method of controlling an irrigation system as recited in Claim 1, further
15 comprising viewing landscape information and/or irrigation schedules for a plurality of geographically dispersed sites via a single web interface.

33. A method of controlling an irrigation system as recited in Claim 1, further comprising modifying landscape information and/or irrigation schedules for a plurality of geographically dispersed sites via a single web interface.

20 34. A method of controlling an irrigation system as recited in Claim 1, wherein the landscape information includes irrigation method.

35. A method of controlling an irrigation system as recited in Claim 1, wherein the landscape information includes precipitation rate.

36. A method of controlling an irrigation system as recited in Claim 1, wherein the landscape information includes distribution uniformity.
37. A method of controlling an irrigation system as recited in Claim 1, wherein the landscape information includes root depth of plant.
- 5 38. A method of controlling an irrigation system as recited in Claim 1, wherein the landscape information includes dripline diameter of plant.
39. A method of controlling an irrigation system as recited in Claim 1, wherein the landscape information includes number of emitters per plant.
40. A method of controlling an irrigation system as recited in Claim 1, wherein the
10 landscape information includes flow rate of emitter.
41. A method of controlling an irrigation system as recited in Claim 1, wherein the landscape information includes sun exposure information.
42. A method of controlling an irrigation system as recited in Claim 1, wherein the landscape information includes plant coefficient by month.
- 15 43. A method of controlling an irrigation system as recited in Claim 1, wherein the irrigation schedule is optimized for one or more stations.
44. A method of controlling an irrigation system as recited in Claim 1, wherein the irrigation schedule includes multiple stations operating simultaneously.
45. A method of controlling an irrigation system as recited in Claim 1, wherein the
20 irrigation schedule is derived using station flow rates and maximum allowable system flow.
46. A method of controlling an irrigation system as recited in Claim 1, wherein the irrigation schedule is automatically adjusted for rainfall.

47. A method of controlling an irrigation system as recited in Claim 1, wherein deriving the irrigation schedule includes minimizing runoff.
48. A method of controlling an irrigation system as recited in Claim 1, wherein the irrigation schedule includes hourly restrictions.
- 5 49. A method of controlling an irrigation system as recited in Claim 1, wherein the irrigation schedule includes non-watering days.
50. A method of controlling an irrigation system as recited in Claim 1, wherein deriving the irrigation schedule includes accounting for the priority of stations.
51. A method of controlling an irrigation system as recited in Claim 1, wherein the
10 landscape information includes seasonality of plants.
52. A method of controlling an irrigation system as recited in Claim 1, wherein the irrigation schedule is derived using station flow rates provided by a flow sensor.
53. A method of controlling an irrigation system as recited in Claim 1, wherein the irrigation schedule is optimized to fit within a user-defined water window.
- 15 54. A method of controlling an irrigation system as recited in Claim 1, wherein the irrigation schedule includes individual station schedules derived using a plurality of algorithms.
55. A method of controlling an irrigation system as recited in Claim 1, wherein deriving the irrigation schedule includes selecting an algorithm based on an irrigation
20 method.
56. A method of controlling an irrigation system as recited in Claim 1, wherein deriving the irrigation schedule includes selecting an algorithm based on geographic location.

57. A method of controlling an irrigation system as recited in Claim 1, wherein the irrigation schedule is derived using station flow rates provided by a water meter.

58. A method of controlling an irrigation system as recited in Claim 1, further comprises uploading meter data from a water meter to the irrigation control unit.

5 59. An irrigation system comprising:

a processor configured to:

receive landscape information;

receive environmental information;

derive an irrigation schedule based on the landscape information

10 and the environmental information; and

send the irrigation schedule to an irrigation control unit.

60. A computer program product for controlling an irrigation system, the computer program product being embodied in a computer readable medium and comprising computer instructions for:

15 receive landscape information;

receive environmental information;

deriving an irrigation schedule based on the landscape information and the environmental information; and

sending the irrigation schedule to an irrigation control unit.